

**Western Great Basin Interagency Fire Weather
Operating Plan
-2002-**

SIGNATORY PAGE

Meteorologic Services Division
Western Region
National Weather Service
National Oceanic and
Atmospheric Administration

Date: _____

Program Manager - Fire
Nevada Division of Forestry

Date: _____

Fire Management Officer
Nevada State
Bureau of Land Management
United States Department of Interior

Date: _____

Forest Fire Management Officer
Humboldt-Toiyabe National Forest

Date: _____

Western Great Basin Interagency Fire Weather Operating Plan

-2002-

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I - Introduction

As in 2001, the Great Basin Operating Plan continues to be split into the Western and Eastern Great Basin Operating Plans. This document contains the 2002 operating plans for the Western Great Basin Fire Weather Districts. It should be retained for your use until the issuance of the 2003 operating plan. This plan describes the fire weather forecast services provided by the National Weather Service (NWS) offices in Reno, Elko and Las Vegas, Nevada as well as predictive services offered by meteorologists at the Western Great Basin Coordination Center (WGBCC) in Reno, Nevada. Weather observation sites required from fire management agencies as input for the National Fire Danger Rating System (NFDRS) are listed and spot forecast request procedures are explained. Copies of this document can be requested from the Reno NWS office or the WGBCC. Copies of the Eastern Great Basin Fire Weather Operating Plan can be requested from the Boise NWS office (208-334-9862) and is available on the Boise NWS web site (www.wrh.noaa.gov/Boise/firewx.htm).

Three NWS offices and WGBCC meteorologists will provide fire weather forecast services for the western Great Basin:

Reno NWS	-	Western Nevada and portions of Eastern California
Elko NWS	-	Northern and East Central Nevada
Las Vegas NWS	-	Southern Nevada and Northwest Arizona
WGBCC	-	Longer range outlooks for all of Nevada

The operating plan for each district, as well as other fire weather forecast information and web-based spot forecast request capability can be found on the appropriate web sites:

Reno NWS	-	www.wrh.noaa.gov/reno/fire/
Elko NWS	-	www.wrh.noaa.gov/elko/firewx/fire.html
Las Vegas NWS	-	www.wrh.noaa.gov/lasvegas/fire.shtml
WGBCC	-	www.nv.blm.gov/

II - What's New for 2002

A. The WGBCC Will Be Staffed with Meteorologists for the 2002 Fire Season

The WGBCC will have two meteorologists available for predictive services. The forecast services will be geared towards long term weather forecasts (to 10 days) and will be available to provide weather forecast input into long term monthly and seasonal fire assessments. For a more detailed description of the services provided by the meteorologists in the WGBCC see Section III.

B. Amended Red Flag Criteria

Red Flag Criteria for the 2002 Fire Season has changed to better reflect observed critical weather patterns. Relative humidity has been dropped from the criteria for dry thunderstorms, but the coverage of dry thunderstorms remains the same. In addition, sustained wind criteria for Red Flag

events has been dropped from 12+ hours to 10+ hours. Also, the cold front criteria has been dropped and substituted with widespread wind gusts greater than 35 mph for 3+ hours. The final change was to add a forecaster discretion option when weather conditions are unusual and may contribute to extreme fire behavior. A new decision tree has been constructed to better illustrate these changes and can be found in all three NWS sections in the appendices A, B and C.

C. Fire Weather Zone Boundary Changes and New Zone Numbers in the NWS Reno District

Fire Weather Zone boundaries in the Reno Fire Weather district have been changed to better reflect local climatology. In addition, the Fire Weather Zone number have also changed. For a more detailed description of the new zones, please refer to the Reno Fire Weather operating plan in Appendix A.

D. Format of Weather Briefings

Fire weather briefings for the Western Great Basin will follow a new format for the 2002 fire season. Both fire weather forecasters at the NWS in Reno and meteorologists at the WGBCC will give briefings in a team-oriented approach. Weather briefings will begin with a short term briefing (36-48 hours) conducted by a NWS Reno fire weather forecaster. When the NWS forecaster is finished, a WGBCC meteorologist will conduct the rest of the weather briefing focusing on days 3-5 and 6-10. It is required that the NWS and WGBCC meteorologists coordinate before the call to assure consistency in the briefing.

E. Western Great Basin Coordination Center Meteorologists Participating in the NWS Nevada Conference Call

The past few years, the three Nevada NWS offices (Elko, Reno, and Las Vegas) have conducted a forecast coordination call twice daily at 120 am and pm. This year, WGBCC meteorologists will sit in on the 120 pm coordination call to better promote forecast continuity and uniformity.

F. Spot Forecasts Will Now Be Issued with a Valid Until Statement

Spot forecasts issued from the WFOs this year will change, and will have a VALID UNTIL XXX AM/PM statement that will be 12 hours from the forecast issuance. The statement will be located below the date/time group of when the forecast was issued. For example, if a spot forecast were sent at 830 am, the spot forecast would be valid until 830 pm that day. For more information, and an example using the current spot forecast format, please see each WFO section in Appendices A, B and C.

G. Temperature Level Forecast Changes for the Reno District

Reno will no longer be forecasting temperatures in the short-term (2-day) forecast at the 7,000 or 8,000 foot level. The temperatures will now be forecast at the valley floors, and at mid-slope. For more information and a sample Reno zone format, see the Reno Fire Weather Operating Plan in Appendix A.

III - Western Great Basin Predictive Services

Predictive Services is a unit which is assigned to the Western Great Basin Geographic Area Coordination Center. The staffing of this unit consists of two meteorologists, an intelligence coordinator, utilization of Nevada BLM Fire and Aviation staff and a climatological expert, if needed.

The role of Predictive Services is to produce weather and fire danger outlooks. A weekly outlook will be issued each Tuesday, and it will cover the upcoming 10 day period. This product will be updated on an as needed basis. Monthly outlooks will be issued at the beginning of each month. Seasonal outlooks will cover a three month period and will be issued monthly. All products will be posted to the Western Great Basin Coordinating Center web site: <http://www.nv.blm.gov/wgbcc>

Predictive Services will also give geographic area briefings in collaboration with the Weather Service. The Weather Service will cover the first 36 to 48 hour period (short term), and Predictive Services will cover the mid and long range periods. When a MAC group is formed for the Great Basin or Nevada, Predictive Services will give briefings, again in collaboration with the Weather Service.

A brief coordination call will be made to the Weather Service prior to the morning briefing and the GACC meteorologist will participate in the Weather Service Nevada state coordination call each afternoon. This call will be made starting May 13 at 1:20 pm and continue into mid October.

Any questions concerning Western Great Basin Predictive Services should be directed to Steve Brown, program manager.

Phone: 775-861-6421
Cell: 775-741-1050
Email: s2brown@nv.blm.gov

**Weekly Fire Weather/Fire Danger Outlook for:
Western Great Basin Predictive Services**
Issued:

Geographic Area Weather Discussion

--

THIS SPACE FOR A “CLICKABLE” MAP

Figure 1. Format of 10-day outlook

Zones:
Discussion:

	Weather Outlook		
Day	Weather Trends		
NFDRS INDICES	CURRENT VALUE	AVERAGE VALUE	CRITICAL VALUE
ERC (Fuel Model G)			
BI			
1000 Hour Fuel			

Fire Danger Assessment:

Figure 1 continued

Appendix

A. RENO FIRE WEATHER

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1. ORGANIZATIONAL DIRECTORY

All National Weather Service (NWS) offices can fulfill spot forecast requests 24 hours a day, seven days a week throughout the year. Depending on the severity of the situation, forecasters will also update routine fire weather zone forecasts, fire weather watches and Red Flag warnings 24 hours a day, seven days a week.

A. 2002 Fire Weather Season

May 28 - October 25	24 hours a day	7 days a week
October 26 - May 27 ("off-season" format)	24 hours a day	7 days a week

Note: Transition to the "off-season" format may occur earlier in October, depending on the onset of winter storms and colder weather.

B. Fire Weather Management Staff

Jane Hollingsworth (Jane.Hollingsworth@noaa.gov)	Meteorologist In Charge (MIC)
Rhett Milne (Rhett.Milne@noaa.gov)	Fire Weather Program Manager (IMET Trainee)
Wendell Hohmann (Wendell.Hohmann@noaa.gov)	Fire Weather Forecaster (IMET trainee)
Roger Lamoni (Roger.Lamoni@noaa.gov)	Warning Coordination Meteorologist (WCM)
Mary Cairns (Mary.Cairns@noaa.gov)	Science and Operations Officer (SOO)

Office Address: National Weather Service
2350 Raggio Parkway
Reno, NV 89512

C. Office Telephone and Fax Numbers

Fire Weather Number:	775-673-8105
Fax Number:	775-673-8110

D. Web Information

Reno Fire Weather Web Page Address: <http://www.wrh.noaa.gov/reno/fire/index.html>

In conjunction with the Western Great Basin Geographic Area Coordination Center (GACC), the Reno NWS office will continue to provide an Internet Briefing page. This page is typically used to provide weather graphics and enhance weather understanding during the 9:30 a.m. Western Great Basin coordination call as determined by the GACC.

2. BASIC METEOROLOGICAL SERVICES

A. Areal Coverage and Fire Weather Zone Configuration

The Reno Fire Weather District covers portions of western Nevada, northeast California and the east slopes of the Sierra Nevada. There are eight (8) fire weather zones in the Reno District. Forecasts are prepared for each weather zone or cluster of zones following the morning and afternoon formats found in Section 5.

B. Zone Descriptions

See Section 4.

C. Forecast Types and Issuance Times

	<u>Forecast</u>	<u>Issuance Time</u>
a.	Morning Fire Weather Forecast -	0730
b.	Afternoon Fire Weather Forecast -	1500-1530
c.	Spot Forecasts -	AS REQUESTED
d.	NFDRS Trend Forecasts	1510-1530
e.	Red Flag Warnings and Fire Weather Watches	WHEN CRITERIA HAS BEEN FORECAST OR OBSERVED
F.	Updates to All Products	WHEN CHANGES TO FORECAST ARE EXPECTED OR OBSERVED

D. Red Flag Warning and Fire Weather Watch Definitions

1. Fire Weather Watch

A Fire Weather Watch will be issued when the forecaster is reasonably confident that a “Red Flag Event” will occur. A watch should be issued 24 but no more than 72 hours in advance of the event’s expected onset. **A watch may only be issued in the first 12 hour time period for expected Dry Lightning Events.**

2. Red Flag Warning

A Red Flag Warning is issued within 24 hours of expected occurrence. A warning is intended to tell the user that critical fire weather patterns are occurring or are imminent.

3. Cancellations

Prompt cancellation of either a watch or a warning is required. The forecaster shall promptly cancel any Fire Weather Watch or Red Flag Warning when it is no longer valid.

E. Red Flag Criteria for Nevada

See next page for Red Flag criteria.

Local Red Flag Criteria
NEVADA

IF

10-hour fuel moisture 5% or less
and
Live fuel moisture index 120% or less

THEN

if any of the following are expected:

1. Dry Thunderstorms expected over 15% or more of the forecast area
2. Forecast minimum relative humidity of 15% or less *and* sustained winds (20 foot - 10 min avg) expected of 20 MPH or more for 10+ hours
3. Forecast minimum relative humidity of 15% or less *and* widespread wind gusts (instantaneous) expected of 35 MPH or more for 3+ hours
4. In the judgement of the forecaster, weather conditions will create a critical fire control situation. These conditions may include strong microburst winds, cold frontal passage or strong wind shift, and extremely hot and dry conditions.

Issue the appropriate watch/warning

ELSE

No watch or warning required

F. Spot Forecasts

Spot forecasts are prepared upon request. Spot forecasts will be written for a 36-hour period, unless requested otherwise. In 2002, “web based” spot requests are preferred, with faxed Form D-1 requests as a back-up method. Fax spot requests should be sent to 775-673-8110. Whenever a spot request has been made, a confirmation call to 775-673-8105 is requested to ensure the spot was received.

It is vital to the prescribed burn or wildfire that the following be submitted to the NWS in order to make a quality and representative forecast which in turn makes for the best possible fire behavior forecasts:

1. Representative Observations from:
 - a. the site where the burn will occur and
 - b. the time at which the burn will occur.
2. Proper location: township and range or latitude and longitude.
3. For prescribed burns, please provide the NWS with as many representative observations as possible before you actually submit the spot request. Also provide the NWS with ample notice that you will be doing a prescribed burn.
 - a. If you are able to notify us a day or two in advance, this will allow us to reduce turnaround time in providing the spot.
4. In essence, the more information you can provide us for any type of spot forecast request, the better our forecast service for you will be.

The Spot forecast format is described in Section 6.

G. Service Back-Up

In the event of an emergency that prevents WFO Reno from providing normal fire weather services to you, the following offices will provide back-up products and services:

Primary	WFO Elko	775-778-6720
Secondary	WFO Sacramento	916-979-3047

The Western Great Basin Coordination Center (775-861-6455) will be notified whenever another office has assumed fire weather product and service responsibility. WFO Reno will notify the Coordination Center when we are able to resume normal forecast operations.

3. SPECIAL METEOROLOGICAL SERVICES

A. Onsite Services

There are two IMET trainees in the Reno Fire Weather District available for on-site fire weather services, in combination with a fully qualified IMET. At least one trainee is expected to become fully qualified for IMET duties during the 2002 fire season:

Rhett Milne (Rhett.Milne@noaa.gov)
Wendell Hohmann (Wendell.Hohmann@noaa.gov)
Work phone 775-673-8105

Note: If a wildfire or large prescribed burn occurs within 50 miles of the Reno National Weather Service Office, better service can usually be provided to you when the IMET is able to work out of this office and commute to the incident command center for briefings and coordination.

B. Training

Training for the weather sections of S-290 and S-490 can be provided at customer request.

4. Reno Fire Weather District Zone Descriptions

1. **CA Zone 570:** Extreme eastern Modoc County. Bounded by Oregon to the north, the Warner Mountains to the west, and Zone 458 to the east. Includes all Federal and state lands and the Surprise Valley.
2. **CA Zone 572:** All federal and state lands in most of eastern Lassen county (excluding the Warner Mountains) and a portion of south-central Modoc county.
3. **NV Zone 459:** All federal and state lands in Mineral and southern Lyon counties. Bounded by California and Zone 450 to the west, Zone 453 to the north, and Esmeralda and Nye counties to the south and east. Includes the Humboldt Toiyabe National Forest, the Wasuk Range, and the Excelsior Mountains.
4. **NV Zone 450:** Extreme Western Nevada. Bounded by California and Zone 542 to the west, Zone 576 to the south, Zones 459 and 453 to the east, and Zone 458 to the north. Includes all federal and state lands, mountain ranges and valleys in Storey county, the eastern 3/4 of Douglas and Carson City counties, extreme western Lyon county, and southern Washoe county (except the extreme southwest). Includes the Virginia Range and Pine Nut Mountains.

5. **NV Zone 458:** Extreme Northwest Nevada. Bounded by Oregon to the north, Humboldt and Pershing counties to the east, and Zones 570 and 572 to the west. Includes all federal and state lands, mountain ranges and valleys in northern Washoe county, including the Smoke Creek Desert, and the western 1/4 of the Sheldon National Wildlife Refuge.
6. **NV Zone 453:** The west-central portion of Nevada including all federal and state lands, mountain ranges and valley in Pershing and Churchill counties, east-central Washoe county, and northern Lyon county. Includes the Stillwater and Humboldt mountain ranges, Lahontan Reservoir, and Pyramid Lake.
7. **CA Zone 542:** The Lake Tahoe Basin. Bounded by the Sierra Nevada crest to the west, Zone 576 to the south, Interstate 80 to the north, and Zone 450 to the east. Includes the Carson Range and Peavine Peak in the Humboldt/Toiyabe National Forest, eastern portions of the Eldorado and Tahoe National Forests, State Parks near Lake Tahoe, the Desolation Wilderness, and the Crystal Range. Includes extreme eastern Placer, Eldorado, Nevada, and Sierra counties, extreme western Douglas and Carson City counties in Nevada, and extreme southwest Washoe county.
8. **CA Zone 576:** East Central California. Includes the Humboldt Toiyabe National Forest east of the Sierra Nevada crest, the eastern 2/3 of Alpine county and the northern 1/2 of Mono county including Mono Lake.

See map on next page.

5. Zone Forecast Format

Note the five zone forecast groupings shown below. These zone groups will be used to provide you with better and more detailed forecasts while keeping product length reasonable. These five fire weather zone groups will normally be used for the Reno Fire Weather District through the season. However, users should pay close attention to zone groupings as they can change with any given forecast.

Morning:

WESTERN NEVADA AND EASTERN CALIFORNIA FIRE WEATHER FORECAST
NATIONAL WEATHER SERVICE RENO NV
730 AM PDT TUE MAY 28 2002

...HEADLINE AND WATCHES/WARNINGS IF NEEDED...

DISCUSSION:

NOTE: THUNDERSTORMS IMPLY GUSTY AND ERRATIC WINDS.
NOTE: ALL WINDS ARE 20-FOOT UNLESS SPECIFIED OTHERWISE.
NOTE: GENERAL WIND FORECASTS INCLUDED FOR DAYS 3-5.
NOTE: PLEASE SEE OPERATING PLAN FOR DETAILED ZONE DESCRIPTIONS AT:
[HTTP://WWW.WRH.NOAA.GOV/RENO/FIRE/REV_OPPLAN.HTM](http://www.wrh.noaa.gov/reno/fire/rev_opplan.htm)

NVZ003-282300-

NV ZONE 450 WESTERN NEVADA INCLUDING CARSON CITY,
 DOUGLAS, AND STOREY COUNTIES, SOUTHERN WASHOE
 COUNTY, AND WESTERN LYON COUNTY.

INCLUDES: A PORTION OF THE WESTERN NEVADA TOIYABE NF.

...HEADLINE FOR CURRENT WATCHES AND WARNINGS IF NEEDED...

.TODAY...

SKY/WEATHER.....
 MAX TEMPERATURE: VALLEY FLOOR...
 MID-SLOPE.....
 24 HR TREND.....
 MIN HUMIDITY: VALLEY FLOOR...%
 MID-SLOPE.....%
 24 HR TREND.....%
 WIND - 20 FT
 SLOPE/VALLEY...
 RIDGETOP.....
 LAL.....
 HAINES INDEX.....
 MIXING HEIGHTS.....
 TRANSPORT WINDS....

.TONIGHT...

SKY/WEATHER.....
 MIN TEMPERATURE: VALLEY FLOOR...
 MID-SLOPE.....
 24 HR TREND.....
 MAX HUMIDITY: VALLEY FLOOR...%
 MID-SLOPE.....%
 24 HR TREND.....%
 WIND - 20 FT
 SLOPE/VALLEY...
 RIDGETOP.....

LAL.....
 HAINES INDEX.....

 .WEDNESDAY...
 SKY/WEATHER.....
 MAX TEMPERATURE: VALLEY FLOOR...
 MID-SLOPE.....
 MIN HUMIDITY: VALLEY FLOOR...%
 MID-SLOPE.....%
 WIND - 20 FT
 SLOPE/VALLEY...
 RIDGETOP.....

 .3-7 DAY FORECAST (THU-MON)...

 .8-14 DAY OUTLOOK (TUE JUN 4 - MON JUN 10)...

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 NVZ004-282300-

 NV ZONE 453 WEST CENTRAL NEVADA BASIN AND RANGE INCLUDING
 PERSHING AND CHURCHILL COUNTIES, EAST CENTRAL
 WASHOE COUNTY AND NORTHERN LYON COUNTY.

 ...HEADLINE FOR CURRENT WATCHES AND WARNINGS IF NEEDED...

 .TODAY...
 SKY/WEATHER.....
 MAX TEMPERATURE: VALLEY FLOOR...
 MID-SLOPE.....
 24 HR TREND.....
 MIN HUMIDITY: VALLEY FLOOR...%
 MID-SLOPE.....%
 24 HR TREND.....%
 WIND - 20 FT
 SLOPE/VALLEY...
 RIDGETOP.....
 LAL.....
 HAINES INDEX.....
 MIXING HEIGHTS.....
 TRANSPORT WINDS.....

 .TONIGHT...
 SKY/WEATHER.....
 MIN TEMPERATURE: VALLEY FLOOR...
 MID-SLOPE.....
 24 HR TREND.....
 MAX HUMIDITY: VALLEY FLOOR...%
 MID-SLOPE.....%
 24 HR TREND.....%
 WIND - 20 FT
 SLOPE/VALLEY...
 RIDGETOP.....
 LAL.....
 HAINES INDEX.....

 .WEDNESDAY...
 SKY/WEATHER.....
 MAX TEMPERATURE: VALLEY FLOOR...
 MID-SLOPE.....
 MIN HUMIDITY: VALLEY FLOOR...%
 MID-SLOPE.....%
 WIND - 20 FT
 SLOPE/VALLEY...
 RIDGETOP.....

 .3-7 DAY FORECAST (THU-MON)...

.8-14 DAY OUTLOOK (TUE JUN 4 - MON JUN 10)...

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CAZ070-071-NVZ005-282300-

CA ZONES 570,572 NORTHWEST NEVADA AND NORTHEAST CALIFORNIA
NV ZONE 458 INCLUDING NORTHERN WASHOE COUNTY NV, SURPRISE
VALLEY CA, AND EASTERN LASSEN COUNTY CA.

...HEADLINE FOR CURRENT WATCHES AND WARNINGS IF NEEDED...

.TODAY...

SKY/WEATHER.....
MAX TEMPERATURE: VALLEY FLOOR...
MID-SLOPE.....
24 HR TREND.....
MIN HUMIDITY: VALLEY FLOOR...%
MID-SLOPE.....%
24 HR TREND.....%
WIND - 20 FT
SLOPE/VALLEY...
RIDGETOP.....
LAL.....
HAINES INDEX.....
MIXING HEIGHTS.....
TRANSPORT WINDS....

.TONIGHT...

SKY/WEATHER.....
MIN TEMPERATURE: VALLEY FLOOR...
MID-SLOPE.....
24 HR TREND.....
MAX HUMIDITY: VALLEY FLOOR...%
MID-SLOPE.....%
24 HR TREND.....%
WIND - 20 FT
SLOPE/VALLEY...
RIDGETOP.....
LAL.....
HAINES INDEX.....

.WEDNESDAY...

SKY/WEATHER.....
MAX TEMPERATURE: VALLEY FLOOR...
MID-SLOPE.....
MIN HUMIDITY: VALLEY FLOOR...%
MID-SLOPE.....%
WIND - 20 FT
SLOPE/VALLEY...
RIDGETOP.....

.3-7 DAY FORECAST (THU-MON)...

.8-14 DAY OUTLOOK (TUE JUN 4 - MON JUN 10)...

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CAZ072>073-NVZ002-282300-

CA ZONE 542 GREATER LAKE TAHOE AREA
CA ZONE 576 EAST CENTRAL CALIFORNIA INCLUDING EASTERN
ALPINE COUNTY AND NORTHERN MONO COUNTY TO
MONO LAKE.

REGION INCLUDES: THE SIERRA NEVADA CREST EASTWARD, THE LAKE TAHOE
BASIN, AND PORTIONS OF THE TOIYABE NF, TAHOE NF,
AND ELDORADO NF IN EASTERN CALIFORNIA.

...HEADLINE FOR CURRENT WATCHES AND WARNINGS IF NEEDED...

.TODAY...

SKY/WEATHER.....
MAX TEMPERATURE: VALLEY FLOOR...
MID-SLOPE.....
24 HR TREND.....
MIN HUMIDITY: VALLEY FLOOR...%
MID-SLOPE.....%
24 HR TREND.....%
WIND - 20 FT
SLOPE/VALLEY...
RIDGETOP.....
LAL.....
HAINES INDEX.....
MIXING HEIGHTS.....
TRANSPORT WINDS....

.TONIGHT...

SKY/WEATHER.....
MIN TEMPERATURE: VALLEY FLOOR...
MID-SLOPE.....
24 HR TREND.....
MAX HUMIDITY: VALLEY FLOOR...%
MID-SLOPE.....%
24 HR TREND.....%
WIND - 20 FT
SLOPE/VALLEY...
RIDGETOP.....
LAL.....
HAINES INDEX.....

.WEDNESDAY...

SKY/WEATHER.....
MAX TEMPERATURE: VALLEY FLOOR...
MID-SLOPE.....
MIN HUMIDITY: VALLEY FLOOR...%
MID-SLOPE.....%
WIND - 20 FT
SLOPE/VALLEY...
RIDGETOP.....

.3-7 DAY FORECAST (THU-MON)...

.8-14 DAY OUTLOOK (TUE JUN 4 - MON JUN 10)...

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NVZ001-282300-

NV ZONE 459 WEST CENTRAL NEVADA INCLUDING MINERAL COUNTY
AND SOUTHERN LYON COUNTY.

REGION INCLUDES: THE WESTERN PORTION OF THE TOIYABE NF.

...HEADLINE FOR CURRENT WATCHES AND WARNINGS IF NEEDED...

.TODAY...

SKY/WEATHER.....
MAX TEMPERATURE: VALLEY FLOOR...
MID-SLOPE.....
24 HR TREND.....
MIN HUMIDITY: VALLEY FLOOR...%
MID-SLOPE.....%
24 HR TREND.....%
WIND - 20 FT

SLOPE/VALLEY...
 RIDGETOP.....
 LAL.....
 HAINES INDEX.....
 MIXING HEIGHTS.....
 TRANSPORT WINDS....

 .TONIGHT...
 SKY/WEATHER.....
 MIN TEMPERATURE: VALLEY FLOOR...
 MID-SLOPE.....
 24 HR TREND.....
 MAX HUMIDITY: VALLEY FLOOR...%
 MID-SLOPE...%
 24 HR TREND...%

 WIND - 20 FT
 SLOPE/VALLEY...
 RIDGETOP.....
 LAL.....
 HAINES INDEX.....

 .WEDNESDAY...
 SKY/WEATHER.....
 MAX TEMPERATURE: VALLEY FLOOR...
 MID-SLOPE.....
 MIN HUMIDITY: VALLEY FLOOR...%
 MID-SLOPE...%

 WIND - 20 FT
 SLOPE/VALLEY...
 RIDGETOP.....

 .3-7 DAY FORECAST (THU-MON) ...

 .8-14 DAY OUTLOOK (TUE JUN 4 - MON JUN 10) ...

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Afternoon:

WESTERN NEVADA AND EASTERN CALIFORNIA FIRE WEATHER FORECAST
 NATIONAL WEATHER SERVICE RENO NV
 330 PM PDT MON MAY 28 2002

 ...HEADLINE AND WATCHES/WARNINGS IF NEEDED...

DISCUSSION:

NOTE: THUNDERSTORMS IMPLY GUSTY AND ERRATIC WINDS.
 NOTE: ALL WINDS ARE 20-FOOT UNLESS SPECIFIED OTHERWISE.
 NOTE: GENERAL WIND FORECASTS INCLUDED FOR DAYS 3-5.
 NOTE: PLEASE SEE OPERATING PLAN FOR DETAILED ZONE DESCRIPTIONS AT:
 [HTTP://WWW.WRH.NOAA.GOV/RENO/FIRE/REV_OPPLAN.HTM](http://www.wrh.noaa.gov/reno/fire/rev_opplan.htm)

NVZ001-003-291500-

 NV ZONE 450 WESTERN NEVADA INCLUDING CARSON CITY,
 DOUGLAS, AND STOREY COUNTIES, SOUTHERN WASHOE
 COUNTY, AND WESTERN LYON COUNTY.

INCLUDES: A PORTION OF THE WESTERN NEVADA TOIYABE NF.

...HEADLINE FOR CURRENT WATCHES AND WARNINGS IF NEEDED...

.TONIGHT...
 SKY/WEATHER.....
 MIN TEMPERATURE: VALLEY FLOOR...

MID-SLOPE.....
 24 HR TREND.....
 MAX HUMIDITY: VALLEY FLOOR...%
 MID-SLOPE.....%
 24 HR TREND.....%
 WIND - 20 FT
 SLOPE/VALLEY...
 RIDGETOP.....
 LAL.....
 HAINES INDEX.....

.WEDNESDAY...
 SKY/WEATHER.....
 MAX TEMPERATURE: VALLEY FLOOR...
 MID-SLOPE.....
 24 HR TREND.....
 MIN HUMIDITY: VALLEY FLOOR...%
 MID-SLOPE.....%
 24 HR TREND.....%
 WIND - 20 FT
 SLOPE/VALLEY...
 RIDGETOP.....
 LAL.....
 HAINES INDEX.....
 MIXING HEIGHTS.....
 TRANSPORT WINDS....

.WEDNESDAY NIGHT...
 SKY/WEATHER.....
 MIN TEMPERATURE: VALLEY FLOOR...
 MID-SLOPE.....
 MAX HUMIDITY: VALLEY FLOOR...%
 MID-SLOPE.....%
 WIND - 20 FT
 SLOPE/VALLEY...
 RIDGETOP.....

.THURSDAY...
 SKY/WEATHER.....
 MAX TEMPERATURE: VALLEY FLOOR...
 MID-SLOPE.....
 MIN HUMIDITY: VALLEY FLOOR...%
 MID-SLOPE.....%
 WIND - 20 FT
 SLOPE/VALLEY...
 RIDGETOP.....

.3-7 DAY FORECAST (FRI-TUE)...

.8-14 DAY OUTLOOK (WED JUN 5 - TUE JUN 11)...

\$\$

NVZ004-291500-

 NV ZONE 453 WEST CENTRAL NEVADA BASIN AND RANGE INCLUDING
 PERSHING AND CHURCHILL COUNTIES, EAST CENTRAL
 WASHOE COUNTY AND NORTHERN LYON COUNTY.

...HEADLINE FOR CURRENT WATCHES AND WARNINGS IF NEEDED...

.TONIGHT...
 SKY/WEATHER.....
 MIN TEMPERATURE: VALLEY FLOOR...
 MID-SLOPE.....
 24 HR TREND.....
 MAX HUMIDITY: VALLEY FLOOR...%
 MID-SLOPE.....%

```

                24 HR TREND.....%
WIND - 20 FT
  SLOPE/VALLEY...
  RIDGETOP.....
  LAL.....
  HAINES INDEX.....

.WEDNESDAY...
SKY/WEATHER.....
  MAX TEMPERATURE:  VALLEY FLOOR...
                    MID-SLOPE.....
                    24 HR TREND.....%
  MIN HUMIDITY:      VALLEY FLOOR...%
                    MID-SLOPE.....%
                    24 HR TREND.....%
WIND - 20 FT
  SLOPE/VALLEY...
  RIDGETOP.....
  LAL.....
  HAINES INDEX.....
  MIXING HEIGHTS....
  TRANSPORT WINDS....

.WEDNESDAY NIGHT...
SKY/WEATHER.....
  MIN TEMPERATURE:  VALLEY FLOOR...
                    MID-SLOPE.....
  MAX HUMIDITY:      VALLEY FLOOR...%
                    MID-SLOPE.....%
WIND - 20 FT
  SLOPE/VALLEY...
  RIDGETOP.....

.THURSDAY...
SKY/WEATHER.....
  MAX TEMPERATURE:  VALLEY FLOOR...
                    MID-SLOPE.....
  MIN HUMIDITY:      VALLEY FLOOR...%
                    MID-SLOPE.....%
WIND - 20 FT
  SLOPE/VALLEY...
  RIDGETOP.....

.3-7 DAY FORECAST (FRI-TUE)...

.8-14 DAY OUTLOOK (WED JUN 5 - TUE JUN 11)...

$$

CAZ070-071-NVZ005-291500-
*****
CA ZONES 570,572      NORTHWEST NEVADA AND NORTHEAST CALIFORNIA
NV ZONE  458          INCLUDING NORTHERN WASHOE COUNTY NV, SURPRISE
                    VALLEY CA, AND EASTERN LASSEN COUNTY CA.
*****

...HEADLINE FOR CURRENT WATCHES AND WARNINGS IF NEEDED...

.TONIGHT...
SKY/WEATHER.....
  MIN TEMPERATURE:  VALLEY FLOOR...
                    MID-SLOPE.....
                    24 HR TREND.....%
  MAX HUMIDITY:      VALLEY FLOOR...%
                    MID-SLOPE.....%
                    24 HR TREND.....%
WIND - 20 FT
  SLOPE/VALLEY...
  RIDGETOP.....

```


LAL.....
 HAINES INDEX.....

 .WEDNESDAY...
 SKY/WEATHER.....
 MAX TEMPERATURE: VALLEY FLOOR...
 MID-SLOPE.....
 24 HR TREND.....
 MIN HUMIDITY: VALLEY FLOOR...%
 MID-SLOPE.....%
 24 HR TREND.....%

 WIND - 20 FT
 SLOPE/VALLEY...
 RIDGETOP.....

 LAL.....
 HAINES INDEX.....
 MIXING HEIGHTS.....
 TRANSPORT WINDS....

 .WEDNESDAY NIGHT...
 SKY/WEATHER.....
 MIN TEMPERATURE: VALLEY FLOOR...
 MID-SLOPE.....
 MAX HUMIDITY: VALLEY FLOOR...%
 MID-SLOPE.....%

 WIND - 20 FT
 SLOPE/VALLEY...
 RIDGETOP.....

 .THURSDAY...
 SKY/WEATHER.....
 MAX TEMPERATURE: VALLEY FLOOR...
 MID-SLOPE.....
 MIN HUMIDITY: VALLEY FLOOR...%
 MID-SLOPE.....%

 WIND - 20 FT
 SLOPE/VALLEY...
 RIDGETOP.....

 .3-7 DAY FORECAST (FRI-TUE)...

 .8-14 DAY OUTLOOK (WED JUN 5 - TUE JUN 11)...

 \$\$

 CAZ072>073-NVZ002-291500-

 CA ZONE 542 GREATER LAKE TAHOE AREA
 CA ZONE 576 EAST CENTRAL CALIFORNIA INCLUDING EASTERN
 ALPINE COUNTY AND NORTHERN MONO COUNTY TO
 MONO LAKE.

 REGION INCLUDES: THE SIERRA NEVADA CREST EASTWARD, THE LAKE TAHOE
 BASIN, THE TOIYABE NF, TAHOE NF, AND ELDORADO NF IN
 EASTERN CALIFORNIA.

 ...HEADLINE FOR CURRENT WATCHES AND WARNINGS IF NEEDED...

 .TONIGHT...
 SKY/WEATHER.....
 MIN TEMPERATURE: VALLEY FLOOR...
 MID-SLOPE.....
 24 HR TREND.....
 MAX HUMIDITY: VALLEY FLOOR...%
 MID-SLOPE.....%
 24 HR TREND.....%

 WIND - 20 FT
 SLOPE/VALLEY...

RIDGETOP.....
 LAL.....
 HAINES INDEX.....
 .WEDNESDAY...
 SKY/WEATHER.....
 MAX TEMPERATURE: VALLEY FLOOR...
 MID-SLOPE.....
 24 HR TREND.....
 MIN HUMIDITY: VALLEY FLOOR...%
 MID-SLOPE.....%
 24 HR TREND.....%
 WIND - 20 FT
 SLOPE/VALLEY...
 RIDGETOP.....
 LAL.....
 HAINES INDEX.....
 MIXING HEIGHTS.....
 TRANSPORT WINDS....

.WEDNESDAY NIGHT...
 SKY/WEATHER.....
 MIN TEMPERATURE: VALLEY FLOOR...
 MID-SLOPE.....
 MAX HUMIDITY: VALLEY FLOOR...%
 MID-SLOPE.....%
 WIND - 20 FT
 SLOPE/VALLEY...
 RIDGETOP.....

.THURSDAY...
 SKY/WEATHER.....
 MAX TEMPERATURE: VALLEY FLOOR...
 MID-SLOPE.....
 MIN HUMIDITY: VALLEY FLOOR...%
 MID-SLOPE.....%
 WIND - 20 FT
 SLOPE/VALLEY...
 RIDGETOP.....

.3-7 DAY FORECAST (FRI-TUE)...

.8-14 DAY OUTLOOK (WED JUN 5 - TUE JUN 11)...

\$\$

NVZ001-291500-

 NV ZONE 459 WEST CENTRAL NEVADA INCLUDING MINERAL COUNTY
 AND SOUTHERN LYON COUNTY.

REGION INCLUDES: THE WESTERN PORTION OF THE TOIYABE NF.

...HEADLINE FOR CURRENT WATCHES AND WARNINGS IF NEEDED...

.TONIGHT...
 SKY/WEATHER.....
 MIN TEMPERATURE: VALLEY FLOOR...
 MID-SLOPE.....
 24 HR TREND.....
 MAX HUMIDITY: VALLEY FLOOR...%
 MID-SLOPE.....%
 24 HR TREND.....%
 WIND - 20 FT
 SLOPE/VALLEY...
 RIDGETOP.....
 LAL.....
 HAINES INDEX.....

FOR TONIGHT
WEATHER.....
TEMPERATURE.....MIN
HUMIDITY.....MAX %
WIND...EYE LEVEL...

OUTLOOK FOR TOMORROW
WEATHER.....
TEMPERATURE.....MAX
HUMIDITY.....MIN %
WIND...EYE LEVEL...

FORECASTER...

Other Meteorological terms upon request: (20 foot winds, Mixing Heights, Transport Winds, LAL, Inversions, Haines, extended outlook)

7. Fire Weather Observation Sites in the Reno Fire Weather District

<u>STATION</u>	<u>STN NO.</u>	<u>RAWS ID</u>	<u>COUNTY</u>	<u>ST / AGENCY</u>	<u>LOCATION</u>	<u>SEC</u>	<u>TWP</u>	<u>RNG</u>	<u>ELEV</u>
<u>ZONE 450</u>									
Galena	260108		Washoe	NV NDF	39:22:54 119:48:54	34	18N	19E	5800
Desert Springs	260114	325556E4	Washoe	NV BLM	39:40:26 119:46:04	20	21N	20E	5280
Fish Springs	261204	32541714	Douglas	NV BLM	38:56:10 119:29:07	5	12N	21E	5120
<u>ZONE 453</u>									
Bluewing	260202	325BF274	Pershing	NV BLM	40:30:06 119:07:18	1	30N	25E	4569
Dead Camel	260701	325C2628	Churchill	NV BLM	39:15:20 118:57:35	10	16N	27E	4490
Siard	260402	325BD498	Pershing	NV BLM	40:23:40 117:37:30	8	29N	39E	4598
<u>ZONE 458</u>									
Barrel Springs	260111	32578578	Washoe	NV BLM	41:54:40 119:56:20	14	46N	18E	5835
Juniper Springs	260112	325736E6	Washoe	NV BLM	41:04:51 119:46:35	18	37N	20E	5348
Buffalo Creek	260113	3254A49A	Washoe	NV BLM	40:34:55 119:47:24	5	31N	20E	3890
Catnip Mountain	260109	326500E8	Washoe	NV BLM	41:55:15 119:29:42	10	46N	22E	5740
Fox Mountain	260110	327E2232	Washoe	NV BLM	41:00:33 119:33:47	12	36N	21E	6890
<u>ZONE 459</u>									
Brawley Peak	261301	325C13B2	Mineral	NV BLM	38:15:55 118:51:23	28	5N	28E	8080
<u>ZONE 570</u>									
Cedarville	040307	Manual	Modoc	CA BLM	41:32:05 120:10:50	5	42N	16E	4580
<u>ZONE 572</u>									
Susanville	040711	Manual	Lassen	CA BLM	40:04:00 120:06:00	32	30N	12E	4250
Likely	040799	Manual	Lassen	CA BLM	41:09:36 120:33:36	3	38N	12E	7376
Ash Valley	040726	3250C446	Lassen	CA BLM	41:03:07 120:41:10	15	37N	11E	5100
Blue Door	040725	3255F61C	Lassen	CA BLM	41:03:17 120:20:15	24	37N	14E	5615
Bull Flat	040728	3255808C	Lassen	CA BLM	40:28:51 120:06:50	1	30N	16E	4395
Doyle	040724	327B031E	Lassen	CA BLM	40:01:20 120:06:20	17	25N	16E	4240
Horse Lake	040727	32575310	Lassen	CA BLM	40:37:50 120:30:10	15	32N	13E	5100
Juniper Creek	040308	32780410	Modoc	CA BLM	41:19:56 120:28:21	2	40N	13E	4372
Laufman	040709	3234C34E	Plumas	CA Plumas NF	40:08:12 120:20:42	1	26N	14E	4858
Ravendale	040714	3257F3E8	Lassen	CA BLM	40:43:51 120:18:59	23	34N	14E	5298
Observation Mtn	040713	Manual	Lassen	CA BLM	40:50:18 120:09:24	3	34N	16E	7964
<u>ZONE 542</u>									
Meyers	042607	326CB53A	El Dorado	CA Eldorado NF	38:50:56 120:01:05	29	12N	18E	6310
Incline	260115	Manual	Washoe	NV NLTFD	39:50:00 119:57:00	27	23N	18E	6523
Dog Valley	041302		Sierra	CA Toiyabe NF	39:34:18 120:02:18	25	20N	17E	5880
<u>ZONE 576</u>									
Bridgeport	043702	Manual	Mono	CA Toiyabe NF	38:14:54 119:13:11	23	5N	24E	6560
Walker	043707	32729020	Mono	CA Toiyabe NF	38:34:12 119:27:18	9	8N	23E	5680
Markleeville	042802	326D4744	Alpine	CA Toiyabe NF	38:41:00 119:46:00	27	10N	20E	5501

B. FIRE WEATHER ELKO

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I - Organizational Directory

All National Weather Service Offices are manned 24 hours a day, 7 days a week throughout the year. Public and aviation forecasters are available for spot forecast requests outside of normal fire weather working hours stated below.

A. Normal Fire Weather Working Hours:

A forecaster will be available to answer questions 24 hours a day, 7 days a week year-round. Routine fire weather forecasts will begin May 28th twice per day, 5 days a week. On June 17th, routine fire weather forecasts will be issued 7 days a week, twice per day through late October. Outside of these periods, the off-season format of the fire weather forecasts will be issued one per day. Keep in mind that spot forecasts will be available at any time.

B. Staff

Kevin Baker (kevin.baker@noaa.gov)	Meteorologist-in-Charge
Jim Wallmann (james.wallmann@noaa.gov)	Fire Weather Program Manager
	IMET Trainee
Zaaron Allen (zaaron.allen@noaa.gov)	Assistant Fire Weather Program Manager
Paul Eyssautier (paul.eyssautier@noaa.gov)	Warning Coordination Meteorologist
Steve Apfel (steve.apfel@noaa.gov)	Science Operations Officer
Office Address:	National Weather Service
	3720 Paradise Drive
	Elko, NV 89801

C. Office Telephone and Fax Numbers

Fire Weather Forecast:	(775) 778-6720
Fax number:	(775) 778-9786

D. Web Information

Elko Fire Weather Web Page Address: <http://www.wrh.noaa.gov/Elko/firewx/fire.html>

II - Basic Meteorological Services

A. Areal Coverage and Fire Weather Zone Configuration

The Elko fire weather district covers much of northern and central Nevada. WFO Elko has 5 fire weather zones (figure 1, section VII). Forecasts are prepared for each weather zone or cluster of zones following the morning and afternoon formats found in section V of this plan.

B. Zone Descriptions

See section IV of this plan.

C. Forecast Types and Issuance Times

1.	Morning Fire Weather Forecast Update	0700-0730
2.	Afternoon Fire Weather Forecast	1500-1530
3.	Spot Forecasts	As requested
4.	Red Flag Warnings/Fire Weather Watches	When forecasts meet Criteria (fig. 2)
5.	NFDRS forecasts	1450-1510 as requested
6.	Updates to all products	When warranted

D. Red Flag Warning and Fire Weather Watch Definitions

1. Fire Weather Watch

A fire weather watch will be issued when the forecaster is reasonably confident that a “Red Flag Event” will occur. A watch should be issued 12 hours but no more than 72 hours in advance of the events expected onset. A watch may only be issued in the first 12 hours for dry lightning events.

2. Red Flag Warning

A red flag warning is issued within 24 hours of occurrence. A warning is intended to tell the user that critical fire weather patterns are occurring or imminent.

3. Cancellations

Prompt cancellation of either a watch or warning is required. The forecaster shall promptly cancel any fire weather watch or red flag warning when it is no longer valid.

E. Red Flag Criteria

See Figure 2 (Pg. 10).

F. Spot Forecasts

Spot forecasts will be written upon request. Spot forecasts will be written for a 36 hour period or as designated by the customer. The request must include the completed web-based form or the D-1 form. Certain elements on the web-based form need to be completed before a spot request can be sent. Items 1–12 should be filled out on the D-1 form in order to receive a spot forecast. In either case, the dispatch center requesting the spot should contact the NWS office to ensure receipt of the spot.

It is vital to the prescribed burn or wildfire that the following be submitted to the NWS in order to ensure a representative forecast. Quality forecasts in turn make for the best possible fire behavior forecasts.

1. Representative Observations from:
 - a. The site where the burn will occur
 - b. The time at which the burn will occur
2. Proper location (latitude/longitude) of the burn.
3. If it is a prescribed burn, provide the NWS with as much representative observations and time before you actually submit the spot. If you are able to notify us a day or two in advance, turn around time for providing the spot will be reduced.

G. Spot Forecast Format

See section VI.

H. Backup

Should WFO Elko not be able to provide fire weather services in the event of an emergency, the following offices will provide backup:

Primary	WFO Reno	(775) 673-8106
Secondary	WFO Salt Lake City	(801) 524-5066

The office assuming backup responsibility will call the appropriate coordination center so that the customers will know where to direct spot forecast requests and other weather coordination issues. Backup offices have the capability to carry out the full fire weather operations of the forecast office requesting backup. At the end of backup operations, WFO Elko will notify the appropriate coordination center. The following coordination centers should be contacted for the WFO Elko area of responsibility:

Western Great Basin Coordination Center (775) 861-6455

III - Special Meteorological Services

A. On-Site Services

There is one meteorologist training to become an IMET during the 2002 fire season. This IMET trainee will be available for on-site training.

Jim Wallmann - James.Wallmann@noaa.gov 775-778-6720 (work)

B. Training

Training for the weather sections of S-190 and S-290 can be provided at customer request. Requests can be made at any time during the year. Although most requests will be met, there will be times when WFO Elko cannot provide the necessary training due to staffing issues at the WFO and other constraints. In these cases, please provide WFO Elko alternative dates so the appropriate training can be scheduled. If alternative dates are not an option, WFO Elko will help the customer find another trainer in an adjacent WFO or Geographic Area Coordination Center.

IV - Elko Fire Weather Zone Names and Boundaries

1. Nevada Zone 451

The northwest portion of Nevada including all federal and state lands, mountain ranges, and valleys in Humboldt County. This includes the Sheldon National Wildlife Refuge and the Santa Rosa Range in the Humboldt National Forest.

2. Nevada Zone 452

The northeast portion of Nevada including all federal and state lands, mountain ranges, and valleys in Elko County and the northern 1/4 of both Lander and Eureka Counties generally north of I-80. This includes the Independence, Bull Run, East Humboldt and Ruby Mountains in the Humboldt and Toiyabe National Forest.

3. Nevada Zone 454

The central portion of Nevada including all federal and state lands, mountain ranges and valleys in that part of Lander and Eureka Counties generally south of I-80 and north of U.S. 50. This includes the northern portions of the Shoshone, Toquima, Monitor, and Antelope Ranges in the Humboldt and Toiyabe National Forest.

4. Nevada Zone 455

The east central portion of Nevada including all federal and state lands, mountain ranges and valleys in White Pine County. This includes Great Basin National Park, and the White Pine, Schell Creek, Snake, and Egan Ranges in the Humboldt and Toiyabe National Forest.

5. Nevada Zone 457

The central portion of Nevada including all federal and state lands, mountain ranges and valleys in the northern 1/2 of Nye county and Lander and Eureka Counties south of U.S. 50. This includes most of the Shoshone, Toquima, Monitor, Antelope, and Quinn Canyon Ranges in the Humboldt and Toiyabe National Forest.

V - Zone Forecast Format

Morning Fire Weather Forecast Format

ZCZC RNOFWFLKN ALL
TTAA00 KLKN DDHHMM

NORTHERN AND EASTERN NEVADA FIRE WEATHER FORECAST
NATIONAL WEATHER SERVICE ELKO NV
730 AM PDT MON APR 14 2001.....MORNING UPDATE

HEADLINE IF NECESSARY

DISCUSSION:

NVZ013-030>037-2200-

ZONES: NV 451,452,454,455,457 NORTH,CENTRAL,AND EASTERN NEVADA

INCLUDES: THE HUMBOLDT TOIYABE NATIONAL FOREST, THE SANTA ROSA
RANGE AND ALL MOUNTAINS AND RANGES IN STATE AND FEDERAL
LANDS OF HUMBOLDT, ELKO, LANDER, EUREKA, WHITE PINE AND
NORTHERN NYE COUNTIES.

...HEADLINE FOR RED FLAG WARNINGS/FIRE WEATHER WATCHES...

.TODAY...

SKY/WEATHER.....
MAX TEMPERATURE: VALLEY FLOOR...
8000 FEET.....
24 HR TREND.....

MIN HUMIDITY: VALLEY FLOOR...
8000 FEET.....
24 HR TREND.....

WIND - 20 FT
SLOPE/VALLEY...
RIDGETOP.....

LAL.....
HAINES INDEX.....
MIXING HEIGHTS.....
TRANSPORT WINDS....

.TONIGHT...

SKY/WEATHER.....
MIN TEMPERATURE: VALLEY FLOOR...
8000 FEET.....
24 HR TREND.....

MAX HUMIDITY: VALLEY FLOOR...
8000 FEET.....
24 HR TREND.....

WIND - 20 FT
SLOPE/VALLEY...
RIDGETOP.....

LAL.....
HAINES INDEX.....

.TUESDAY...

SKY/WEATHER.....
MAX TEMPERATURE: VALLEY FLOOR...
8000 FEET.....

MIN HUMIDITY: VALLEY FLOOR...
8000 FEET.....

WIND - 20 FT
SLOPE/VALLEY.....
RIDGETOP.....

.EXTENDED FORECAST (3-7 DAY)...

.8-14 DAY FORECAST...

=
\$\$
NAME
NNNN

Afternoon Fire Weather Forecast Format

ZCZC RNOFWFLKN ALL
TTAA00 KLKN DDHMM

NEVADA FIRE WEATHER FORECAST
NATIONAL WEATHER SERVICE ELKO NV
330 PM PDT MON APR 14 2001

HEADLINE IF NECESSARY

DISCUSSION:

NVZ013-030>037-151200-

ZONES: NV 451,452,454,455,457 NORTH,CENTRAL,AND EASTERN NEVADA
INCLUDES: THE HUMBOLDT TOIYABE NATIONAL FOREST, THE SANTA ROSA
RANGE AND ALL MOUNTAINS AND RANGES IN STATE AND FEDERAL
LANDS OF HUMBOLDT, ELKO, LANDER, EUREKA, WHITE PINE AND
NORTHERN NYE COUNTIES

...HEADLINE FOR REDFLAG WARNINGS/FIRE WEATHER WATCHES...

.TONIGHT...
SKY/WEATHER...
MIN TEMPERATURE: VALLEY FLOOR...
8000 FEET.....
24 HR TREND.....

MAX HUMIDITY: VALLEY FLOOR...
8000 FEET.....
24 HR TREND.....

WIND - 20 FT
SLOPE/VALLEY...
RIDGETOP.....
LAL.....
HAINES INDEX.....

.TUESDAY...
SKY/WEATHER...
MAX TEMPERATURE: VALLEY FLOOR...
8000 FEET.....
24 HR TREND.....

MIN HUMIDITY: VALLEY FLOOR...
8000 FEET.....
24 HR TREND.....

WIND - 20 FT
SLOPE/VALLEY...
RIDGETOP.....
LAL.....
HAINES INDEX.....
MIXING HEIGHTS.....
TRANSPORT WINDS.....

.TUESDAY NIGHT...
SKY/WEATHER...
MIN TEMPERATURE: VALLEY FLOOR...
8000 FEET.....

MAX HUMIDITY: VALLEY FLOOR...
8000 FEET.....

WIND - 20 FT
SLOPE/VALLEY...
RIDGETOP.....

.WEDNESDAY...
SKY/WEATHER...
MAX TEMPERATURE: VALLEY FLOOR...
8000 FEET.....

MIN HUMIDITY: VALLEY FLOOR...
8000 FEET.....

WIND - 20 FT
SLOPE/VALLEY.....
RIDGETOP.....

.EXTENDED FORECAST (3-7 DAY)...

.8-14 DAY FORECAST...

=
\$\$
NAME
NNNN

VI - Spot Forecast Format

SPOT FIRE WEATHER FORECAST
NATIONAL WEATHER SERVICE ELKO NV
730 AM PDT SUN APR 2 2001

VALID UNTIL 730 PM SUN APR 2 2001
IF CONDITIONS BECOME UNREPRESENTATIVE, CONTACT THE NATIONAL WEATHER
SERVICE

(Site-specific (SPOT) Forecast for Incident Name)
DIAMOND VALLEY STRUCTURE BURN...T22N R54E S15

(Headline...Red Flag Warning or Fire Weather Watch mandatory; otherwise recommended)
...HEADLINE...

Note: All winds are 20ft unless otherwise stated
Note: Thunderstorms imply gusty winds

(Discussion...required)

.DISCUSSION...

.First Period

Sky/Weather...

Temp...(may be for several times)

RH...(may be for several times)

Wind...(specify level)

Optional Elements(user-defined)

.Second Period

Sky/Weather...

Temp...(may be for several times)

RH...(may be for several times)

Wind...(specify level)

Optional Elements(user-defined)

.Third Period

Sky/Weather...

Temp...(may be for several times)

RH...(may be for several times)

Wind...(specify level)

Optional Elements(user-defined)

NOTE: User-defined optional elements may include, but are not restricted to: 20 foot winds, mixing heights, transport winds, LAL, Haines, extended outlook (3-5 days or 3-7 days).

VIII - Local Red Flag Criteria
NEVADA

IF

10-hour fuel moisture 5% or less
and
Live fuel moisture index 120% or less

THEN

if any of the following are expected:

1. Dry Thunderstorms expected over 15% or more of the forecast area
2. Forecast minimum relative humidity of 15% or less *and* sustained winds (20 foot - 10 min avg) expected of 20 MPH or more for 10+ hours
3. Forecast minimum relative humidity of 15% or less *and* widespread wind gusts (instantaneous) expected of 35 MPH or more for 3+ hours
4. In the judgement of the forecaster, weather conditions will create a critical fire control situation. These conditions may include strong microburst winds, cold frontal passage or strong wind shift, and extremely hot and dry conditions.

Issue the appropriate watch/warning

ELSE

No watch or warning required

Figure 2

IX - Fire Weather Observation Stations

STATION	STN. NO	RAWS ID	COUNTY	AGENCY	LOCATION		ELEV
					Lat	Lon	
<u>ZONE 451</u>							
Dry Canyon	260203	325BE102	Humboldt	BLM	41:29:30	119:07:00	4900
Morey Creek	260204	325C00C4	Humboldt	BLM	41:27:21	117:38:00	5500
Texas Springs	260206	32560196	Humboldt	BLM	41:48:06	118:27:03	5760
Winnemucca	260201	ASOS	Humboldt	NWS	40:54	117:43	4313
<u>ZONE 452</u>							
Antelope Lake	260310	32539334	Elko	BLM	41:41:05	116:45:52	5460
Crane Springs	260314	325BB17E	Elko	BLM	40:27:35	115:51:00	6400
Elko	260303	ASOS	Elko	NWS	40:50:22	115:47:38	5050
Long Hollow	260305	325BA208	Elko	BLM	41:32:19	116:13:03	5820
Rock Spring Creek	260309	325217DA	Elko	BLM	41:38:35	114:26:15	5400
Spring Gulch	260308	3252D2C4	Elko	BLM	40:35:35	114:12:10	5470
Spruce Mountain	260306	325B9792	Elko	BLM	40:26:25	114:48:40	6100
Stag Mountain	260313	325BC7EE	Elko	BLM	41:31:04	115:23:34	6790
<u>ZONE 454</u>							
Battle Mountain	260691	Manual	Lander	NWS	40:36:43	116:53:31	4540
Beacon Light	260505	3250874C	Lander	BLM	40:33:30	116:45:30	4800
Coils Creek	260603	3252723C	Eureka	BLM	39:50:00	119:29:30	6800
Flat Spring	109791	324DE652	Eureka	BLM	39:50:59	116:33:29	7701
Red Butte	260504	32530656	Lander	BLM	39:59:00	117:19:00	5050
<u>ZONE 455</u>							
Alligator Ridge	260804	32548276	White Pine	BLM	39:44:13	115:31:05	6560
Baker Flat	260806	FA62B64C	White Pine	NPS	39:00:07	114:13:03	6840
Cattle Camp	260807	3257A394	White Pine	BLM	38:54:13	114:48:51	7300
Cedar Pass	260805	3255C386	White Pine	BLM	39:45:25	114:08:57	7185
Ely (Apt)	260801	ASOS	White Pine	NWS	39:17:42	114:50:23	6262
Ely	261407	32566470	White Pine	BLM	36:17:52	114:50:10	6590
<u>ZONE 457</u>							
Austin	260507	Manual	Lander	NWS	39:29:46	117:04:19	6605
Combs Canyon	260601	325C50B8	Eureka	BLM	39:22:53	116:10:30	6590
Currant Creek	261406	3257036C	Nye	BLM	38:45:31	115:24:46	5580
Desatoya Mountain	260503	325C6522	Lander	BLM	39:18:04	117:35:04	6200
Pancake	261404	325C86D0	Nye	BLM	38:18:13	116:11:33	5200
Washington		325027B4	Nye	BLM	39:09:17	117:16:18	7160

C. Las Vegas Fire Weather

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1. ORGANIZATIONAL DIRECTORY

A. Work Hours

A qualified Meteorologist is available 24 hours a day, seven days a week, 365 days a year to provide fire weather services as needed. The twice a day, in-season routine narrative fire weather forecasts and afternoon NFDRS trend forecasts will normally be issued from May through October but adjustments to this schedule may be made based on fire danger and weather conditions.

B. Staff

Vacant	Meteorologist In Charge (MIC)
Jim Harrison (Jim.Harrison@noaa.gov)	Fire Weather Program Manager and IMET
Ron McQueen (Ron.McQueen@noaa.gov)	WCM
Kim Runk (Kim.Runk@noaa.gov)	SOO

Office Address: National Weather Service
 7851 Industrial Rd.
 Las Vegas, NV 89139

C. Office Telephone and Fax Numbers

Fire Weather Number:	702-263-9750
Fax Number:	702-263-9759

D. Web Information

Las Vegas Fire Weather Web Page Address:
<http://www.wrh.noaa.gov/lasvegas/fire.shtml>

2. BASIC METEOROLOGICAL SERVICES

A. Areal Coverage and Fire Weather Zone Configuration

The Las Vegas Fire Weather District covers roughly the southern third of Nevada. Las Vegas has 1 Fire Weather Zone in Nevada, zone 456, which is routinely divided into 3 parts for the narrative forecast; northwest, northeast and south. Forecasts are prepared following the morning and afternoon formats. Examples of each are provided at the end of the Las Vegas portion of the Plan.

B. Zone Descriptions

Zone 456: Southern Nevada. Including all federal and state lands, mountain ranges and valleys in Esmeralda, Lincoln, Clark, and the southern ½ of Nye counties. Including the Mt. Charleston Wilderness Area, the Red Rock National Conservation Area, and Spring Mountains in the Humboldt/Toiyabe National Forest, the Lake Mead National Recreational area, the Desert National Wildlife Range, the Valley of Fire State Park. Northwest zone 456 is defined as Esmeralda and southern Nye counties, Northeast zone 456 is Lincoln County and south zone 456 is Clark county. See map on page 17.

C. Forecast Types and Issuance Times

	<u>Forecast</u>	<u>Issuance Time</u>
a.	Morning Fire Weather Forecast -	0700
b.	Afternoon Fire Weather Forecast -	1500
c.	Spot Forecasts -	As requested
d.	Red Flag Warnings and Fire Weather Watches	When Red Flag conditions expected
E.	Updates to All Products	When warranted

D. Red Flag Warning and Fire Weather Watches Definitions

1. Fire Weather Watch

A Fire Weather Watch will be issued when the forecaster is reasonably confident that a "Red Flag Event" will occur. A watch should be issued 24 but no more than 72 hours in advance of the event's expected onset. A watch may be issued in the first 12 hours time period only for Dry Lightning Events.

2. Red Flag Warning

A Red Flag Warning is issued within 24 hours of occurrence. A warning is intended to tell the user that critical fire weather patterns are occurring or are imminent.

3. Cancellations

Prompt cancellation of either a watch or a warning is required. The forecaster shall promptly cancel any Fire Weather Watch or Red Flag Warning when it is no longer valid.

E. Red Flag Criteria for Nevada

IF

10-hour fuel moisture 5% or less
and
Live fuel moisture index 120% or less

THEN

if any of the following are expected:

1. Dry Thunderstorms expected over 15% or more of the forecast area
2. Forecast minimum relative humidity of 15% or less *and* sustained winds (20 foot - 10 min avg) expected of 20 MPH or more for 10+ hours
3. Forecast minimum relative humidity of 15% or less *and* widespread wind gusts (instantaneous) expected of 35 MPH or more for 3+ hours
4. In the judgement of the forecaster, weather conditions will create a critical fire control situation. These conditions may include strong microburst winds, cold frontal passage or strong wind shift, and extremely hot and dry conditions.

Issue the appropriate watch/warning

ELSE

No watch or warning required

F. Spot Forecasts

Spot forecasts will be written upon request. Spot forecasts will be written for a 36 hour period, unless requested otherwise. See spot format. Customers should request spot forecasts using the web-based spot request program found in the fire weather portion of our web page. Check only the parameters needed for the periods needed. Requests can still be done by fax as a backup and the request must include the D-1 form. Items 1-12 should be filled out in order to receive a spot forecast.

We request that you call the office to verify that we actually received the spot forecast request.

It is vital to the prescribed burn or wildfire that the following be submitted to the NWS in order to make a quality and representative forecast which in turn makes for the best possible fire behavior forecasts:

1. Representative Observations from:
 - a. the site where the burn will occur and
 - b. the time at which the burn will occur.
2. Proper location (township and range/ or lat lon) of the burn.
3. If it is a prescribed burn, provide the NWS with as many representative observations before you actually submit the spot forecast request. Also provide the NWS with ample notice that you will be doing a prescribed burn.
 - a. If you are able to notify us a day or two in advance, this will normally allow us to reduce turnaround time in providing the spot.
4. Spot Forecast Feedback:

This is especially important if the burn or fire is going to last for several days and spot forecasts will be requested each day. Feedback regarding the actual versus forecast weather will enable us to “fine tune” subsequent forecasts for that area.

G. Spot Forecast Format

Spot Forecast for the New Pass Fire...Humboldt Toiyabe NF
National Weather Service Las Vegas, NV
0900 AM Thursday October 8, 2000

Valid Until <12 hours from issuance>

If Conditions Become Unrepresentative, Contact the National Weather Service

Note: All winds are 20 ft unless otherwise stated

Note: Thunderstorms imply strong gusty winds

Discussion.....

Forecast for Today

Sky/Weather.....
Max Temperature.....
Min Relative Humidity.....
Wind - 20 FT.....

Forecast for Tonight

Sky/Weather.....
Min Temperature.....
Max Relative Humidity.....
Wind - 20 FT.....

Forecast for the next Day

Sky/Weather.....
Max Temperature.....
Min Relative Humidity.....
Wind - 20 FT.....

Other Meteorological terms upon request: (Mixing Heights, Transport Winds, LAL,
Inversions, Haines, extended outlook)

H. Service Back-Up

In the event of emergency that prevents WFO Las Vegas from providing normal fire weather services to you, the following offices will provide back-up products and services:

Primary	WFO Reno	775-673-8105
Secondary	WFO Elko	775-778-6720

The Western Great Basin Coordination Center (775-861-6455) will be notified whenever another office has assumed fire weather products and service responsibility. WFO Las Vegas will notify the Coordination Center when we are able to resume normal forecast operations.

I. Ventilation

Mixing Height, Transport winds and a categorical ventilation are provided for the first daytime period in the routine narrative forecasts. Mixing height is given in feet above sea level due to differences in elevation across the zone. Transport winds are the average wind within the mixed layer. Ventilation is the product of mixing height (adjusted for elevation) and transport wind.

Note that the ventilation category is an average across the zone unless specified otherwise.

The following categories are used to describe the ventilation:

Excellent	100,000 kt-ft or greater
Very good	70,000-99,999 kt-ft
Good	40,000-69,999 kt-ft
Fair	20,000-39,999 kt-ft
Marginal	8,500-19,999 kt-ft
Poor	less than 8,500 kt-ft

Example: If the mixing height is expected to reach 10,000 ft MSL and the transport wind speed is expected to be 15 knots, the ventilation is $10,000 \times 15 = 150,000$ which falls within the excellent category.

3. SPECIAL METEOROLOGICAL SERVICES

A. Onsite Services

There is one qualified IMET in the Las Vegas office available for onsite weather services:

Jim Harrison - jim.harrison@noaa.gov Work phone 702-263-9750

Read IMET request procedures in the Great Basin Section of the op plan

B. Training

Training for the weather sections of S-290 and S-490 can be provided at customer request.

4. Zone Format for the Morning and Afternoon Forecasts

FNUS55 KVEF DDHHMM
FWFLAS

FIRE WEATHER FORECAST FOR SOUTHERN NEVADA AND NORTHWEST ARIZONA
NATIONAL WEATHER SERVICE LAS VEGAS NV
900 AM MDT TUE MAY 1 2001

...HEADLINE... (Strongly recommended...REQUIRED for Red Flag Warnings and Fire Weather Watches.)

.DISCUSSION...(MANDATORY ELEMENT - concise explanation of the current/forecasted fire weather)

NORTHWEST ZONE 456
NVZ014-017-012200-
ESMERALDA AND CENTRAL AND SOUTHERN NYE COUNTY-
900 AM PDT TUE MAY 1 2001

.TODAY

SKY/WEATHER.....PARTLY CLOUDY WITH A 40 PERCENT CHANCE OF AFTERNOON THUNDERSTORMS.

MAX TEMPERATURE: 4000 FEET...76-80.
7000 FEET...68-72.
24 HR TREND...UP 2-3.

MIN HUMIDITY: 4000 FEET...15-20%.
7000 FEET...19-24%.
24 HR TREND: DOWN 3-4%.

WIND - 20 FT
SLOPE/VALLEY...SOUTH 8-14 MPH.
RIDGETOPS.....SOUTHWEST 12-20 MPH.

LAL...4
HAINES...5

VENTILATION...EXCELLENT
MIXING HEIGHT...15000 FT M.S.L.
TRANSPORT WIND...SOUTHWEST 15 MPH

.TONIGHT

SKY/WEATHER.....MOSTLY CLEAR.

MIN TEMPERATURE: 4000 FEET...57-62.
7000 FEET...50-55.
MAX HUMIDITY: 4000 FEET...32-40%.
7000 FEET...38-45%

WIND - 20 FT
SLOPE/VALLEY...DOWNSLOPE/DOWNVALLEY 4-8 MPH.
RIDGETOP.....SOUTHWEST 10-15 MPH.

LAL...1
HAINES...4

.WEDNESDAY

SKY/WEATHER.....MOSTLY SUNNY.

MAX TEMPERATURE: 4000 FEET...76-80.
7000 FEET...68-72.
MIN HUMIDITY: 4000 FEET...15-20%.
7000 FEET...19-24%.

WIND - 20 FT
SLOPE/VALLEY...SOUTH 8-14 MPH.
RIDGETOP.....SOUTHWEST 10-20 MPH.

LAL...1
HAINES...5

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NORTHEAST ZONE 456
NVZ015-018-012200-
LINCOLN COUNTY-
900 AM PDT TUE MAY 1 2001

.TODAY

SKY/WEATHER.....PARTLY CLOUDY WITH A 40 PERCENT CHANCE OF AFTERNOON
THUNDERSTORMS.
MAX TEMPERATURE: 4000 FEET...76-80.
7000 FEET...68-72.
24 HR TREND...UP 2-3.
MIN HUMIDITY: 4000 FEET...15-20%.
7000 FEET...19-24%.
24 HR TREND: DOWN 3-4%.
WIND - 20 FT
SLOPE/VALLEY...SOUTH 8-14 MPH.
RIDGETOPS.....SOUTHWEST 12-20 MPH.

LAL...4
HAINES...5

VENTILATION...EXCELLENT
MIXING HEIGHT...15000 FT M.S.L.
TRANSPORT WIND...SOUTHWEST 15 MPH

.TONIGHT

SKY/WEATHER.....MOSTLY CLEAR.
MIN TEMPERATURE: 4000 FEET...57-62.
7000 FEET...50-55.
MAX HUMIDITY: 4000 FEET...32-40%.
7000 FEET...38-45%
WIND - 20 FT
SLOPE/VALLEY...DOWNSLOPE/DOWNVALLEY 4-8 MPH.
RIDGETOP.....SOUTHWEST 10-15 MPH.

LAL...1
HAINES...4

.WEDNESDAY

SKY/WEATHER.....MOSTLY SUNNY.
MAX TEMPERATURE: 4000 FEET...76-80.
7000 FEET...68-72.
MIN HUMIDITY: 4000 FEET...15-20%.
7000 FEET...19-24%.
WIND - 20 FT
SLOPE/VALLEY...SOUTH 8-14 MPH.
RIDGETOP.....SOUTHWEST 10-20 MPH.

LAL...1
HAINES...5

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SOUTH ZONE 456
NVZ016>022-012200-
CLARK COUNTY-
900 AM PDT TUE MAY 1 2001

.TODAY

SKY/WEATHER.....PARTLY CLOUDY WITH A 40 PERCENT CHANCE OF AFTERNOON
THUNDERSTORMS.
MAX TEMPERATURE: 4000 FEET...76-80.
7000 FEET...68-72.
24 HR TREND...UP 2-3.

MIN HUMIDITY: 4000 FEET...15-20%.
7000 FEET...19-24%.
24 HR TREND: DOWN 3-4%.

WIND - 20 FT
SLOPE/VALLEY...SOUTH 8-14 MPH.
RIDGETOPS.....SOUTHWEST 12-20 MPH.

LAL...4
HAINES...5

VENTILATION...EXCELLENT
MIXING HEIGHT...15000 FT M.S.L.
TRANSPORT WIND...SOUTHWEST 15 MPH

.TONIGHT

SKY/WEATHER.....MOSTLY CLEAR.
MIN TEMPERATURE: 4000 FEET...57-62.
7000 FEET...50-55.
MAX HUMIDITY: 4000 FEET...32-40%.
7000 FEET...38-45%

WIND - 20 FT
SLOPE/VALLEY...DOWNSLOPE/DOWNVALLEY 4-8 MPH.
RIDGETOP.....SOUTHWEST 10-15 MPH.

LAL...1
HAINES...4

.WEDNESDAY

SKY/WEATHER.....MOSTLY SUNNY.
MAX TEMPERATURE: 4000 FEET...76-80.
7000 FEET...68-72.
MIN HUMIDITY: 4000 FEET...15-20%.
7000 FEET...19-24%.

WIND - 20 FT
SLOPE/VALLEY...SOUTH 8-14 MPH.
RIDGETOP.....SOUTHWEST 10-20 MPH.

LAL...1
HAINES...5

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.EXTENDED:

.THURSDAY...MOSTLY SUNNY. LITTLE CHANGE IN TEMPS AND RH. SOUTH WIND 10-20 MPH.
.FRIDAY AND SATURDAY...PARTLY CLOUDY AND WINDY. TEMPS UP 2-4 DEGREES WITH RH
DOWN ABOUT 5 PERCENT. SOUTH WIND 20-30 MPH...GUSTS TO 40 MPH POSSIBLE SATURDAY.

.6 TO 10 DAY OUTLOOK...ABOVE NORMAL TEMPERATURES WITH NO PRECIPITATION.

NNNN

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FNUS55 KVEF DDHHMM
FWFLAS

FIRE WEATHER FORECAST FOR SOUTHERN NEVADA AND NORTHWEST ARIZONA
NATIONAL WEATHER SERVICE LAS VEGAS NV
300 PM MDT TUE MAY 1 2001

...HEADLINE... (Strongly recommended...REQUIRED for Red Flag Warnings and Fire Weather
Watches.)

.DISCUSSION...(MANDATORY ELEMENT - concise explanation of the current/forecasted fire weather)

NORTHWEST ZONE 456
NVZ014-017-012200-
ESMERALDA AND CENTRAL AND SOUTHERN NYE COUNTY-
300 PM PDT TUE MAY 1 2001

.TONIGHT

SKY/WEATHER.....PARTLY CLOUDY WITH A 30 PERCENT CHANCE OF EVENING
THUNDERSTORMS.
MIN TEMPERATURE: 4000 FEET...57-62
7000 FEET...50-55.
24 HR TREND: UP 2-3.
MAX HUMIDITY: 4000 FEET...32-40%.
7000 FEET...38-45%.
24 HR TREND: DOWN 3-4%.
WIND - 20 FT
SLOPE/VALLEY...DOWNSLOPE/DOWNVALLEY 4-8 MPH.

LAL...3
HAINES...5

VENTILATION...BECOMING POOR
MIXING HEIGHT...FALLING BELOW 1000 FT AGL.
TRANSPORT WIND...SAME AS LOCAL 20 FT WIND.

.WEDNESDAY

SKY/WEATHER.....PARTLY CLOUDY WITH A 40 PERCENT CHANCE OF AFTERNOON
THUNDERSTORMS.
MAX TEMPERATURE: 4000 FEET...76-80.
7000 FEET...68-72.
24 HR TREND: UP 2-3.
MIN HUMIDITY: 4000 FEET...15-20%.
7000 FEET...19-24%.
24 HR TREND: DOWN 3-4%.
WIND - 20 FT
SLOPE/VALLEY...SOUTH 8-14 MPH.
RIDGETOPS.....SOUTHWEST 12-20 MPH.

LAL...4
HAINES...5

VENTILATION...EXCELLENT
MIXING HEIGHT...15000 FT M.S.L.
TRANSPORT WIND...SOUTHWEST 15 MPH.

.WEDNESDAY NIGHT

SKY/WEATHER.....MOSTLY CLEAR.
MIN TEMPERATURE: 4000 FEET...57-62.
7000 FEET...50-55.
MAX HUMIDITY: 4000 FEET...32-40%.
7000 FEET...38-45%.
WIND - 20 FT
SLOPE/VALLEY...DOWNSLOPE/DOWNVALLEY 4-8 MPH.
RIDGETOP.....SOUTHWEST 10-15 MPH.

LAL...1
HAINES...4

.THURSDAY

SKY/WEATHER.....MOSTLY SUNNY.
MAX TEMPERATURE: 4000 FEET...76-80.
7000 FEET...68-72.
MIN HUMIDITY: 4000 FEET...15-20%.
7000 FEET...19-24%.
WIND - 20 FT
SLOPE/VALLEY...SOUTH 8-14 MPH.

RIDGETOP.....SOUTHWEST 10-20 MPH.

LAL...1
HAINES...5

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NORTHEAST ZONE 456
NVZ015-018-012200-
LINCOLN COUNTY-
300 PM PDT TUE MAY 1 2001

.TONIGHT

SKY/WEATHER.....PARTLY CLOUDY WITH A 30 PERCENT CHANCE OF EVENING
THUNDERSTORMS.

MIN TEMPERATURE: 4000 FEET...57-62
7000 FEET...50-55.
24 HR TREND: UP 2-3.
MAX HUMIDITY: 4000 FEET...32-40%.
7000 FEET...38-45%.
24 HR TREND: DOWN 3-4%.

WIND - 20 FT
SLOPE/VALLEY...DOWNSLOPE/DOWNVALLEY 4-8 MPH.

LAL...3
HAINES...5

VENTILATION...BECOMING POOR
MIXING HEIGHT...FALLING BELOW 1000 FT AGL.
TRANSPORT WIND...SAME AS LOCAL 20 FT WIND.

.WEDNESDAY

SKY/WEATHER.....PARTLY CLOUDY WITH A 40 PERCENT CHANCE OF AFTERNOON
THUNDERSTORMS.

MAX TEMPERATURE: 4000 FEET...76-80.
7000 FEET...68-72.
24 HR TREND...UP 2-3.
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7000 FEET...19-24%.
24 HR TREND: DOWN 3-4%.

WIND - 20 FT
SLOPE/VALLEY...SOUTH 8-14 MPH.
RIDGETOPS.....SOUTHWEST 12-20 MPH.

LAL...4
HAINES...5

VENTILATION...EXCELLENT
MIXING HEIGHT...15000 FT M.S.L.
TRANSPORT WIND...SOUTHWEST 15 MPH

.WEDNESDAY NIGHT

SKY/WEATHER.....MOSTLY CLEAR.

MIN TEMPERATURE: 4000 FEET...57-62.
7000 FEET...50-55.
MAX HUMIDITY: 4000 FEET...32-40%.
7000 FEET...38-45%

WIND - 20 FT
SLOPE/VALLEY...DOWNSLOPE/DOWNVALLEY 4-8 MPH.
RIDGETOP.....SOUTHWEST 10-15 MPH.

LAL...1
HAINES...4

.THURSDAY

SKY/WEATHER.....MOSTLY SUNNY.

MAX TEMPERATURE: 4000 FEET...76-80.
7000 FEET...68-72.
MIN HUMIDITY: 4000 FEET...15-20%.
7000 FEET...19-24%.
WIND - 20 FT
SLOPE/VALLEY...SOUTH 8-14 MPH.
RIDGETOP.....SOUTHWEST 10-20 MPH.

LAL...1
HAINES...5

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SOUTH ZONE 456
NVZ016>022-012200-
CLARK COUNTY-
300 PM PDT TUE MAY 1 2001

.TONIGHT

SKY/WEATHER.....PARTLY CLOUDY WITH A 30 PERCENT CHANCE OF EVENING
THUNDERSTORMS.
MIN TEMPERATURE: 4000 FEET...57-62.
7000 FEET...50-55.
24 HR TREND: UP 2-3.
MAX HUMIDITY: 4000 FEET...32-40%.
7000 FEET...38-45%.
24 HR TREND: DOWN 3-4%.
WIND - 20 FT
SLOPE/VALLEY...DOWNSLOPE/DOWNVALLEY 4-8 MPH.

LAL...3
HAINES...5

VENTILATION...BECOMING POOR
MIXING HEIGHT...FALLING BELOW 1000 FT AGL.
TRANSPORT WIND...SAME AS LOCAL 20 FT WIND.

.WEDNESDAY

SKY/WEATHER.....PARTLY CLOUDY WITH A 40 PERCENT CHANCE OF AFTERNOON
THUNDERSTORMS.
MAX TEMPERATURE: 4000 FEET...76-80.
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WIND - 20 FT
SLOPE/VALLEY...SOUTH 8-14 MPH.
RIDGETOPS.....SOUTHWEST 12-20 MPH.

LAL...4
HAINES...5

VENTILATION...EXCELLENT
MIXING HEIGHT...15000 FT M.S.L.
TRANSPORT WIND...SOUTHWEST 15 MPH

.WEDNESDAY NIGHT

SKY/WEATHER.....MOSTLY CLEAR.
MIN TEMPERATURE: 4000 FEET...57-62.
7000 FEET...50-55.
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WIND - 20 FT
SLOPE/VALLEY...DOWNSLOPE/DOWNVALLEY 4-8 MPH.
RIDGETOP.....SOUTHWEST 10-15 MPH.

LAL...1
HAINES...4

.THURSDAY

SKY/WEATHER.....MOSTLY SUNNY.
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7000 FEET...19-24%.

WIND - 20 FT

SLOPE/VALLEY...SOUTH 8-14 MPH.
RIDGETOP.....SOUTHWEST 10-20 MPH.

LAL...1
HAINES...5

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.THURSDAY...MOSTLY SUNNY. LITTLE CHANGE IN TEMPS AND RH. SOUTH WIND 10-20 MPH..
.FRIDAY AND SATURDAY...PARTLY CLOUDY AND WINDY. TEMPS UP 2-4 DEGREES WITH RH
DOWN ABOUT 5 PERCENT. SOUTH WIND 20-30 MPH...GUSTS TO 40 MPH POSSIBLE SATURDAY.

.6 TO 10 DAY OUTLOOK...ABOVE NORMAL TEMPERATURES WITH NO PRECIPITATION.

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*** Note that the forecast format for the off-season is the same,
however the forecast is only issued in the morning.**

5. Las Vegas Fire Weather District Observation Sites

See next page

<u>STATION</u>	<u>STN NO.</u>	<u>RAWS ID</u>	<u>COUNTY</u>	<u>ST</u>	<u>AGENCY</u>	<u>LOCATION</u>	<u>SEC</u>	<u>TWP</u>	<u>RNG</u>	<u>ELEV</u>
<u>ZONE 456</u>										
Kyle Canyon	261702	FTS	Clark	NV	Toiyabe NF	36:50:00 115:38:00	32	19S	57E	7200
Mountain Springs	261708	FTS	Clark	NV	Toiyabe NF	36:20:00 115:52:00	20	22S	57E	5600
Fire Base LMNRA	261709	Manual	Clark	NV	LMNRA	35:58:52 114:50:46	4	23S	64E	2294
Royston Hills	261501	325C7654	Esmeralda	NV	BLM	38:15:47 117:30:58	30	5N	40E	5100
Oriental Wash	261502	325C95A6	Esmeralda	NV	BLM	37:14:07 117:29:47	26	8S	41E	4100
Kane Springs	261604	325CC5DA	Lincoln	NV	BLM	37:15:00 114:42:30	16	8S	65E	4590
Pahrump	261405	325CB34A	Nye	NV	BLM	36:10:12 116:06:40	22	24N	8E	2600
Big Bend	261704	325CA03C	Clark	NV	BLM	35:07:30 114:42:30	15	32S	65E	1000
Red Rock	261705	32516644	Clark	NV	BLM	36:08:07 115:25:38	12	21S	58E	3760
Toquop Wash	261607	32567706	Lincoln	NV	BLM	36:55:24 114:11:56	5	12S	70E	2446
Immigration Wash	261608	3255B516	Lincoln	NV	BLM	37:55:17 114:09:35	29	1N	70E	6230
Christams Tree	261707	325077C8	Clark	NV	BLM	35:16:13 114:46:58	1	31S	64E	3450
Caliente	261601	3257B0E2	Lincoln	NV	BLM	37:36:40 114:31:35	7	4S	67E	4380

Note: All RAWs ID numbers contain no "OH'S" they are all zeros.

D. Requesting Spot Forecasts over the Internet

The Internet should be the primary method for requesting spot forecasts for your agency whenever possible. Web based spot requests are typically fulfilled sooner and more accurately than using the faxed D-1 format. Of course, the D-1 form should still be used as a back-up when Internet requests are not possible. Whenever a spot request is made, please call the NWS office responsible for fulfilling your request to confirm receipt.

Spot forecasts via the Internet should be sent to the appropriate offices:

Reno Fire Weather District - Western Nevada and Eastern California
www.wrh.noaa.gov/reno/Firewx/index.html

Elko Fire Weather District - Northern and East Central Nevada
www.wrh.noaa.gov/elko/firewx/fire.html

Las Vegas Fire Weather District - Southern Nevada and Northwest Arizona
www.wrh.noaa.gov/lasvegas/fire.htm

Simply click on the “Spot Forecasts” button from any of the above web pages.

The main spot forecast page updates every minute and shows you the location and status of any spot forecasts that have already been requested for today. You can view these other forecasts as well as request a new sport forecasts of your own.

Each request has its own web page where all the information about that request s displayed, including maps, information about the request and, eventually, the forecast. Sensitive information about the request (such as phone numbers, names of contact persons, and the exact location of the burn) is NOT visible by everyone, ONLY on the computer that made the request and NWS computers.

When you request a new spot forecast, you provide information in a web-based form that is similar to the D-1 form that you may be used to using. The information you provide on the form is checked for consistency, and after you complete the form, the NWS is notified of a new request and a new web page is created for this burn.

Once you have submitted a request, you will probably want to view the web page for your burn - or chick back frequently to view its status. To view the web page for any burn or wildfire, go to the main spot forecast web page, click either on the name of the burn in the listing, or on the dot in the map for the burn. This page will also automatically update every minute so that when new information becomes available, you will see it right away. If we find any errors in your request, we might even send you a question that will show up on this page. You can answer the question, or make other changes to your request from this web page, but ONLY from the computer that made the original request. Since the forecast screen is automatically updated every minute, you will see the forecast within a minute of it being issued.

When the forecast is complete, you can print the web page, or do whatever you want with the information. From the main spot forecast page, you have the ability to switch to a similar screen for days other than today. You can use this to send us feedback on earlier forecasts, or to copy the information from one request to a new request for today.

If you have questions or problems, each office is still available by phone. The phone numbers are listed on page 1, and also in each office's operating plan in Appendices A, B, and C. Please continue to call the numbers for your local office when you send a web spot request to ensure that we have received the request.

Spot Forecast Monitor

The main spot forecast monitoring page shows you all of today's spot forecasts on the map and also in the list at the bottom of the page.

This page auto-updates every minute, so as new spot forecasts are requested or their status changes, you immediately see the changes on the page.

The dots on the map show the locations of the burns, and the status of the spot forecast requests. Green squares indicate requests that are still pending. Purple squares indicate burns where questions have been asked. Red squares indicate burns where the forecasts have been completed. You can either click on the dots on the map, or the list of spot names at the bottom of the page to view the individual web page for each request.

You can use the arrow buttons next to the date to view spot requests from other days, or you can use the "CALENDAR" link to move to other days more quickly.

To request a spot forecast, click on the button labeled "Submit a new Spot Request," and you will be taken to the Spot Forecast Request Form.

Spot Forecast Request Form

You fill in this form with the information needed to request a spot forecast.

The first time you fill out a spot forecast, almost all the boxes will be empty. After that, many of the boxes will be filled in with information that shouldn't change very much from one request to another (such as your name and phone number).

The elements highlighted in red are required for us to complete your spot forecast. While the other items may not be necessary, they are very important to our ability to make an accurate and useful forecast.

The form is broken into seven sections. Let's look at each section individually, and the parameters you will need to fill in.

Project Name Section

You need to provide a name for your project. The name cannot be the same as any other project issued - and you will be alerted if you pick a name the same as an existing burn. One option of avoiding this potential problem would be to increment the spot name. E.g. Tabor Creek 1, Tabor Creek 2, etc.

You should use the buttons to indicate whether the fire is a Wildfire, WFU or Prescribed Fire (prescribed fire is chosen by default when you enter the form). For prescribed fires, you should indicate the ignition time and date using a 24-hour clock (and the time zone if necessary). The form defaults to an ignition time about ½ hour into the future.

If the spot request is not related to a wildfire or prescribed burn (HAZMAT spill, replanting, wildlife transfer, aerial spraying operation, etc.) please indicate this clearly in the project name and/or the

comments section. References to ignition time in the spot forecast will then indicate the start of the non-fire related project.

Requesting Agency Section

You need to tell us who you are! Here you provide your agency name, your phone number for both voice and fax (please include the area code) and your name. All this information will be helpful to us if there are problems or questions and we need to contact you. You will only need to enter this information the first time you request a spot forecast. After that, it will be filled in with the same information as your last request.

Location Section

In this section you tell us the precise location of the burn. You can either specify the legal location or the latitude/longitude. If you use the legal method, you should provide something like: T5N R12E Sec 24. If you use the latitude/longitude method, you can either specify degrees like: 45.1486 or in degrees/minutes/seconds like" 45 13 33.

If you can, please specify the name of the 7 ½ minute USGS quadmap where the burn is located. We will check that against the legal or lat/lon location that you give. The elevation (in feet) at the top and bottom of the burn should be entered in the "Elevation" boxes. If the burn is on flat ground, you can enter a value in only one of the boxes. Enter the name of the nearest drainage in the "Drainage" box. This helps us further locate the burn when the legal or lat/lon location still leave some ambiguity. Enter the slope aspect, such as NE or S (or possibly FLAT) in the "Aspect" box. This helps us further locate the burn. Also please enter the size of the burn (in acres) in the "Size" box.

Fire Danger Assessment: Fuel Section

Please indicate the type of fuel, either using fuel model numbers, or a description of the fuel such as "grass," "ponderosa pine," etc. Also, if you can indicate the amount of fuel sheltering, it help us tremendously in providing accurate wind forecasts.

Observation Section

In this section you provide us with local observations near the burn. For each observation we need where it is in relation to the burn (for example, "base camp," "1 mile NW" or something like that), the elevation (in feet) and the time (preferably using a 24-hour clock). The wind (in miles per hour can be specified as "N12 Gust 25" or something like that. The temperature and wet-bulb values (in degrees F) should be entered and the rH (in percent) and Dewpoint (in degrees F) can also be entered if known (they will actually be calculated from the Temperature/Wet-bulb/Elevation if you do not provide them). Finally, any remarks about clouds, weather or other important information should be entered in the final box. If you have more than 4 observations (and we like that!) please put them in the comments section below (or fax them to us).

Forecast Elements Section

Not all spot forecasts are created equal! In this section we are asking you to tell us what are the forecast elements you need, or are particularly important. If you have a grass fire that will be out by later today, we don't want to waste time worrying about the temperature for tomorrow, unless you really need it. Likewise, if the wind direction is particularly important for you, we want to know about it. Pick the parameters that you need for today, tonight and tomorrow. If we think something is particularly noteworthy, we will let you know - even if you don't request it. If you are submitting

a request in the evening for the next day - keep in mind that you are requesting parameters for the day of the burn. For wildfires, we will provide all parameters (except smoke dispersion), so you do not need to waste time filling this in, unless you have a parameter that is particularly critical for you (in which case, this is a good place to indicate that).

Comments Section

If there is something else you think we need to know, or something you couldn't fit elsewhere on the form, please enter it here. There is virtually no limit to what you can put here.

Submit the Form

When you are ready to submit the form, just click on the "Submit Request" button at the bottom of the page. If you want to cancel the request you can click on the "Cancel Request" button, and if you want to clear the form and start over again, you can click on the "Clear Form" button.

When you submit the form, various checks are performed on the data you have entered. Some problems make it impossible for your request to be accepted (for example, if you forget to enter a name for the burn), which will produce warnings and messages for your information. If an error is found, you will be given the opportunity to go back and fix the form, or cancel the request. Once you are confident there are no more errors in your request, it will be submitted and we will be automatically notified through our computer systems. If you have the time, we appreciate it if you could still call us, just in case something goes wrong on the web and we don't get notified of your request.

Spot Forecast Webpage

After you have submitted a spot forecast request, an individualized spot forecast webpage becomes available for that burn. This page automatically updates every minute so that as new information becomes available for the burn, you see it immediately. Detailed maps of the area around the burn are generated and displayed when they become available. Keep in mind that "sensitive" information, like your name, phone number, and the exact location of the burn are NOT visible to others - only to you and the NWS.

If we have questions about your request, we may send you back a question about it. If this happens, you will see a big red box in the forecast page, with our question. Usually, there is some problem with the request that you can probably fix (use the links at the bottom of the page to change the request) or you can call us.

When your forecast is complete, it will show up in the spot forecast webpage automatically, and a box to provide feedback will become available. We hope that you can provide us feedback with how the forecast worked out, perhaps later in the day or several days down the road. This feedback helps us tremendously in improving our forecasts.

At the bottom of the forecast page are links for actions that you can take. For example, you can go "Back to Spot List" to return to the monitor page. If you are at the same computer that made the original request, you can click on "Change Request" to change the details of your request, or "Delete Request" to delete the request.

You can also click on "Copy Info to New Spot Request." This is helpful for burns that last several days. Rather than having to re-enter the data in the form in order to get a new forecast - you can

view the previous forecast and then copy all the location parameters to a new request using this link. This will save you some time when filling out the request form.

Invariably, something will go wrong at some point, and you might not be able to request or receive spot requests via the webpage (for example, your computers might go down, or our web server may fail). In such cases, we would like you to fill out the paper version of the request form (as it appears on the next page) and fax it to us. We will fax you back the forecast when it is complete. Please keep in mind that this should be used as a last resort. Spot Forecast Requests received via the webpage will be completed more quickly.